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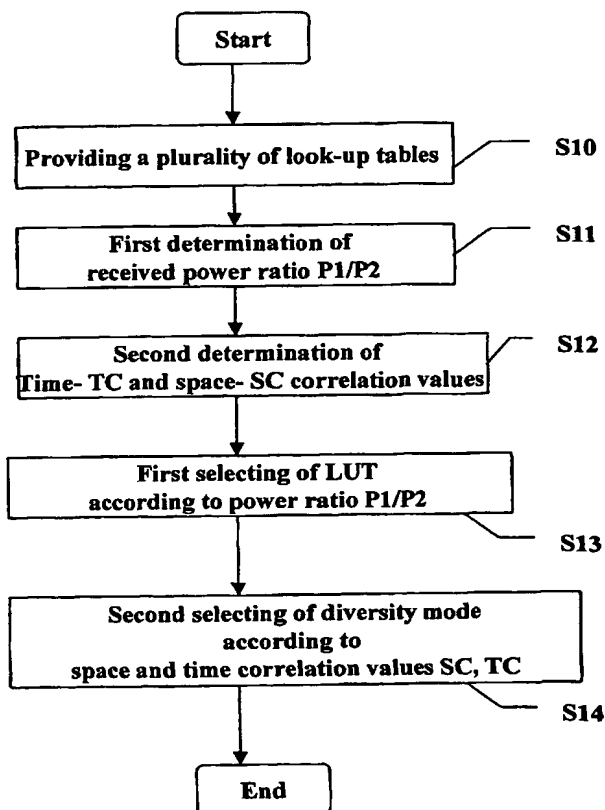
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(54) Title: **TRANSMISSION DIVERSITY WITH TWO CROSS-POLARISED ANTENNAS ARRAYS**



(57) Abstract: The present invention concerns a method for selecting a diversity mode (A, B, C) to be applied by a transmitter having two cross-polarized antenna arrays (Ant1, Ant 2), each representing a diversity branch, comprising the steps of: providing (S10) a plurality of diversity mode performance chart look-up tables (LUT, LUT1, LUT2, LUT3), mapping a respective individual diversity mode (A, B, C) to a respective pair of time correlation value (TC) and space correlation value (SC) for said two cross-polarized antenna array beams, wherein a respective individual diversity mode is presented by a mapping area, wherein the plurality of performance chart look-up tables is parameterized by an indication of a ratio (P1/P2) of received powers from said diversity branches, first selecting (S13) one of said performance chart look-up tables dependent on determined ratio (P1/P2) of received powers from separate beams, and second selecting (S14) one of said individual diversity modes (A, B, C) according to the mapping to the determined actual time 303 relation (TC) and space correlation (SC) values from said first selected performance chart look-up table.